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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,199	06/19/2001	Hiroshi Shingai	210039US2	9868

22850 7590 05/17/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

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DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/883,199

Applicant(s)

SHINGAI ET AL.

Examiner

Jorge L Ortiz-Criado

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikukaya et al. U.S. Patent No. 6,169,722.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “**by another,**” or by **an appropriate showing under 37 CFR 1.131.**

Regarding claim 1, Kikukaya et al. discloses an optical recording medium having a phase change recording layer containing antimony as a main component, in which recorded marks having a shortest length of up to 350 nm are formed, wherein said recording layer does not include Ag (See col. 3, lines 29-48; col. 13, lines 6-13)

Regarding claim 2, Kikukaya et al. discloses wherein said recording layer further contains tellurium or indium or both as a main component (See col. 3, lines 29-48; col. 4, lines 19-35)

Regarding claim 3, Kikukaya et al. discloses wherein said recording layer further contains at least one element selected from the group consisting of germanium, nitrogen and rare earth elements as an auxiliary component (See col. 3, lines 29-48; col. 4, lines 19-35; col. 9, lines 51-65).

Regarding claim 4, Kikukaya et al. discloses an optical recording method comprising the step of irradiating recording beam which has been power modulated between a high power and a low power, to the optical recording medium of any one of claims 1 to 3 for thereby forming amorphous recorded marks in the recording layer (See col. 6, lines 10-65; Figs. 3, 4),

said recorded marks including shortest recorded marks having a leading edge and a trailing edge, at least a part of the trailing edge being convex toward the leading edge (See col. 4, line 36 to col. 5, lines 21; Figs. 3,4).

Regarding claim 5, Kikukaya et al. discloses wherein the convex shape at the trailing edge of the shortest recorded marks is formed by causing the regions melted by irradiation of recording beam to crystallize (See col. 4, line 65 to col. 5, line 21; Fig. 3)

Regarding claim 6, Kikukaya et al. discloses wherein the shortest recorded marks are formed so as to meet the relationship:

$M_L \leq 0.4\lambda/NA$ , wherein the shortest recorded marks have a length  $M_L$ , the recording beam has a wavelength  $\lambda$ , and an objective lens of a recording optical system by which the recording beam is transmitted has a numerical aperture NA. (See col. 7, lines 34-59; Fig. 3)

Regarding claim 7, Kikukaya et al. discloses wherein the shortest recorded marks are formed so as to meet the relationship:

$M_W/M_L > 1$  wherein the shortest recorded marks have a width  $M_W$  and a length  $M_L$  (See col. 4, lines 42-60)

### ***Response to Amendment***

3. The declaration filed on 2/26/2004 in paper no. 9 under 37 CFR 1.131 has been considered but is ineffective to overcome the U.S. Patent No. 6,169,722 to Kikuaka et al. reference. The 37 CFR 1.131 Affidavit or declaration of prior invention recited below:

*“(a) When any claim of an application or a patent under reexamination is rejected, the inventor of the subject matter of the rejected claim, the owner of the patent under reexamination, or the party qualified under §§ 1.42, 1.43, or 1.47, may submit an appropriate oath or declaration to establish invention of the subject matter of the rejected claim prior to the effective date of the reference or activity on which the rejection is based. The effective date of a U.S. patent, U.S. patent application publication, or international application publication under PCT*

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*Article 21(2) is the earlier of its publication date or date that it is effective as a reference under 35 U.S.C. 102(e)...*

*“(b) The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration or their absence satisfactorily explained.”*

The declaration filed on 2/26/2004 in paper no. 9 under 37 CFR 1.131 fails to establish invention of the subject matter of the rejected claim prior to the effective date of the reference or activity on which the rejection is based

4. The U.S. Patent No. 6,169,722 to Kikuaka et al. is still considered under as a 35 U.S.C. 102(e) reference of different inventive entities. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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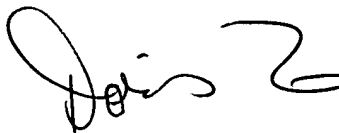
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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